Review Comments Area 2 Riverbank Source Control Measures Focused Feasibility Study Gunderson Facility 4350 NW Front Avenue Portland, Oregon Dated September 18, 2015

Submitted November 9, 2015

Following are the United States Environmental Protection Agency's (EPA) comments on the document titled, Area 2 Riverbank Source Control Measures, Focused Feasibility Study (FFS report), Gunderson Facility, 4350 NW Front Avenue, Portland, Oregon, prepared by Apex for Gunderson LLC. The facility is listed in DEQ's Environmental Cleanup Site Information (ECSI) as ECSI #1155, is located at RM9W on the Willamette River, immediately adjacent to the in water SMA at RM9W of the Portland Harbor superfund site. Based upon DEQ's 2014 Upland Summary Status Report the riverbank area is rated "High" for source control needs.

The Gunderson Facility has been divided into three main production areas defined as follows (from downriver to upriver): Area 1, Area 2, and the Schnitzer/ASD Yard. The Area 2 riverbank (the subject of the FFS report), generally occupies the middle third of the Facility. The FFS report addresses two areas where interim source control measures (ISCMs) are incomplete and require permanent source control measures: Source Control Area 2 - The Launchways and Source Control Area 5 - Ways 2 Building.

General Comments

- 1. Chemical of concern (COC), i.e. arsenic, concentrations above risk-based screening levels for occupational exposure scenario, would remain in-place with the recommended source control measure (SCM) for Source Control Area 5 Ways 2 Building. However, institutional controls were eliminated from further consideration in Section 8.1 of the FFS report. Institutional controls are typically included in alternative development when the clean-up does not result in unrestricted use and unlimited exposure. Institutional controls include administrative and/or legal restrictions intended to control or prevent present and future use of the contaminated medium. Institutional controls also include informational measures to inform and warn of dangers associated with the contaminated medium. Physical barriers are access controls as part of the engineered action, and not considered institutional controls. Remove reference to physical barriers in the description of institutional controls. Include a separate category of access controls as a general approach for SCMs. Given that the site is an operating facility, access will likely be restricted.
- 2. EPA expects that future project activities, including the riverbank remedial design, permitting, and other authorizations will allow EPA to have further input on the design and implementation of the selected source riverbank control measure including integration with any in-water remedial efforts at Portland Harbor Sediment Management Area at River Mile 9 West (RM9W).

Specific Comments

- 1. Section 2.1, Page 3, second paragraph; Section 5.1.1.2, Page 12; Section 8.2.3, Page 22 Presentation of slope for Source Control Area 2 Launchways is inconsistent with differing slopes mentioned throughout the document (i.e., Section 2.1 specifies a slope of 7.5H:1V, Section 5.1.1.2 specifies a slope of 5H:1V, and Section 8.2.3 specifies a slope of 6H:1V). Revise the text to indicate a consistent approximate slope. In addition, evaluating slopes and costs should consider substantive provision of the Clean Water Act, Section 404 permit regarding compliance with the Endangered Species Act, and Magnuson-Stevens Fishery Conservation and Management Act related to slope design that achieves protection of essential fish habitat.
- 2. Section 8.2.2, Page 22, second paragraph, second sentence Correct the reference of Source Control Area 2 to "Source Control Area 5 Ways 2 Building".
- 3. Section 8.2.2, Page 22, second paragraph, last sentence Correct the reference of Source Control Area 5 Launchways to "Source Control Area 2 Launchways".
- 4. Section 8.2.3, Page 22 It is recommended that the geotextile used as a separation layer on a sloping surface should be anchored in an anchor trench before placement of aggregate layer.
- 5. Section 8.2.3, Page 22 and 23 Provide the necessary reference in the document for the flow depth assumption of 0.042 feet. Also, update the corresponding calculations for "bed shear" and "mean diameter stone size" based on the revised approximate slope from Specific Comment 1.
- 6. Section 9.1, Page 25 Under Effectiveness it states that "aggregate containment is expected to require more maintenance than PCC containment" but this is not what the summary table on page 27 represents. Include comparison of maintenance requirements in the summary table.
- 7. Sections 9.1 and 9.2 For the Cost portions of these sections, cost backup was not included in the document. Include the assumptions and calculations to determine the estimated cost for each alternative evaluated. Cost backup should include documentation of cost sources.
- 8. Figure 3 is missing from the PDF document.
- 9. Figure 6: Update figure to show "Wattle System" between Launchway 29 and 30. Section 5.1.1.2 states that "...two wattle systems were installed between each set of Launchways, with the exception of areas between Launchways that are entirely covered by PCC". Figure 6 shows that area between Launchway 29 and 30 is not entirely covered with Portland cement concrete (PCC).
- 10. Figure A-6 (2014 Aerial Photograph) at the end of Appendix D is not relevant to this document.